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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,896	12/28/2001	James D. Huffman	TI-25856	1594

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EXAMINER

YOHA, CONNIE C

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,896

Applicant(s)

HUFFMAN ET AL.

Examiner

Connie c. Yoha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on election filed 2/11/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 12-15,17 is/are rejected.
- 7) ☒ Claim(s) 2-11 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. This office acknowledges receipt of the following items from the Applicant:
Information Disclosure Statement (IDS) filed on 12/28/01 was considered.
2. Claims 1-20 are presented for examination.
3. Claims 18-20 are withdrawn from consideration due to the election of the restriction requirement.
4. Claims 1-17 are pending.

Claim Rejections - 35 USC § 112

5. Claim 12-15 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is insufficient antecedent basis for the limitations.

In claim 12, line 4 recite the limitation "said metal layer".

In claim 13, line 1-2 recite the limitation "said metal layer".

In claim 13, line 2 recite the limitation "said address node".

In claim 14, line 2 recite the limitation "said "reset bar" electrodes".

In claim 14, line 3 recite the limitation "said array".

In claim 15, line 1-2 recite the limitation "said cell address node".

In claim 15, line 2 recite the limitation "said mirror beam".

In claim 17, line 2, line 4 and line 9 recite the limitation "said reset bar".

In claim 17, line 6, 8-9 11, and 13 recite the limitation "said micromirror mirrors".

In claim 17, line 10 and 12 recite the limitation "said the mirror beam".

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 and 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Huffman Pat. No. 6266178.

With regard to claim 1, Huffman discloses a micromirror device comprising: a DRAM memory cell with storage capacitor (fig. 3); a mirror superstructure electrically connected to the memory cell (col. 7, line 29-33); and reset electrodes positioned by the mirror superstructure (col. 4, line 35-36)

With regard to claim 12, Huffman further discloses an oxide layer (fig. 2, 106); a hinge (fig. 2, 120) and yoke layer (fig. 2, 114) above a metal layer (fig. 2, 104); a mirror metal layer (fig. 2, 102) above said hinge and yoke layer; and wherein said reset electrode are formed on the oxide layer (col. 4, line 43-52) (also with regard to claim 13-15).

Allowable Subject Matter

7. Claim 2-11, 16 are objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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8. Claim 17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

The prior art of record does not show the limitation of said control circuit includes wherein the Dram memory cell further comprises: a single cmos transistor having an inherent junction capacitor and electrically connected to said polysilicon-to-substrate storage capacitor; a bit-line providing data to the memory cell; a word address line; and a mirror address node connected to an output of the memory cell. Prior art also does not disclose wherein the mirror over failed cell, always turns off and wherein the "reset" and "reset bar" electrode steady state values are set at +20 and -15 volts, respectively; the reset and reset bar electrodes are switched to -15V and +20V, respectively, to reset the micromirror mirrors and that wherein they are switched to +5V to 0V, respectively to set the micromirror mirrors to their new state; the mirror beam is addressed at 0V to rotate the micromirror mirror -10 degree OFF; and the mirror beam is addressed at +5V to rotate the micromirror mirror +10 degree ON.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. Doherty et al (6115083), Chiu et al (5670977) and Sampsell (5452024) disclose a memory device with micromirror.

9. When responding to the office action, Applicants' are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

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10. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02 (b)).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is (703) 306-5731. The examiner can normally be reached on Mon. - Fri. from 8:00 A.M. to 5:30 PM. The examiner's supervisor, David Nelms, can be reached on (703) 308-4910. The fax phone number for this Group is (703) 308-7722. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-0956.



C. Yoha

April 2003



Connie C. Yoha

Patent Examiner

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